



**Universidade de
Aveiro
2006**

Secção Autónoma de Ciências Sociais,
Jurídicas e Políticas

YI WU

**THE EQUALITY OF EDUCATIONAL OPPORTUNITY
IN CHINESE HIGHER EDUCATION**



**Universidade de
Aveiro
2006**

Secção Autónoma de Ciências Sociais,
Jurídicas e Políticas

YI WU

A IGUALDADE DE OPORTUNIDADES EDUCACIONAIS NO ENSINO SUPERIOR CHINÊS

dissertação apresentada à Universidade de Aveiro para cumprimento dos requisitos necessários à obtenção do grau de Mestre em mestrado europeu em Ensino Superior (Erasmus Mundus), realizada sob a orientação científica do Prof. Dr. Rui Armando Gomes Santiago, Professor Associado do Departamento de Secção Autónoma de Ciências Sociais, Jurídicas e Políticas da Universidade de Aveiro

Dedication to...

(optional)

the juri

president

Prof. Dr. Artur da Rosa Pires
Professor Catedrático da Universidade de Aveiro;

Vogais

Prof. Dr. Manuel António Fernandes da Graça
Professor Auxiliar da Faculdade de Economia da Universidade do Porto;

Prof. Dr. Rui Armando Gomes Santiago
Professor Associado com Agregação da Universidade de Aveiro (orientador).

Acknowledgement

First and foremost, to prof. Rui Armando Gomes Satiago as my supervisor in the University of Aveiro, for his continuous enthusiasm and dedication in supervising my thesis.

To my parents, for their continuous encouragement and support during my thesis writing, and during the two years of my master's degree study.

To my friends in China, for their kindly help on my thesis materials' collection.

.

Aveiro, December 2006

YI WU

palavras-chave

ensino superior, igualdade, diferença, análise experimental

resumo

Desde 1998, o governo chinês tem vindo a introduzir reformas no ensino superior: o número de estudantes tem aumentado, assim como o valor das propinas. O objectivo deste estudo é abordar a diferença de igualdade educacional entre as áreas urbanas e rurais desde 1998 até hoje. Esta tese irá debruçar-se sobre se a reforma do ensino superior acentuará a diferença existente entre as áreas urbanas e rurais, zonas desenvolvidas e subdesenvolvidas na China.

Primeiramente, esta tese demonstrará as diferentes oportunidades de acesso no sistema educacional chinês no ensino superior. Alguns documentos estatísticos serão abordados para discutir as diferentes oportunidades no ensino superior entre áreas urbanas e rurais na capital Pequim e em toda a China.

Seguidamente, este estudo debruçar-se-á sobre as possíveis causas que determinam a diferença de oportunidades no ensino superior chinês. Irá também fornecer visões pessoais acerca da influência da reforma do ensino superior, incidindo sobre a evolução das desigualdades entre áreas urbanas e rurais.

Posteriormente, esta tese conclui que a reforma no ensino superior chinês influencia tanto os estudantes de áreas rurais como de urbanas. Apesar de a reforma ter aspectos positivos, esta aumenta a diferença e desigualdade de oportunidades entre as zonas urbanas e rurais no ensino superior.

keywords

higher education, equality, difference, experimental analysis

abstract

Since 1998, Chinese government has launched reform on higher education: rapid enrolment expansion and increasing tuition. The purpose of this study is to present the gaps of educational equality between urban and rural areas after 1998. This thesis will discuss if the higher education reform enlarge the existing gap between urban and rural areas, and developed and less-developed areas in China.

First of all, this thesis will give the demonstration of entrance opportunity on Chinese higher education. Some statistical description will be used to discuss the difference of higher educational opportunity between urban and rural areas in capital Beijing and whole China.

Secondly, the thesis will discuss some reasons from some different facets that cause the opportunity difference in Chinese higher education. And also will give some personal ideas on the influence of higher education reform, especially influence of difference between urban and rural areas.

In conclusion, the study finds that Chinese higher education reform influencing both urban students and rural students. Although the reform has some positive factors, it enlarges the gap and inequality of opportunity between urban and rural areas on higher education.

TABLE OF CONTENT

Acknowledgements.....	i
Abstract (Portuguese).	ii
Abstract	iii
Chapter One: Introduction to the Study.....	5
1.1 Introduction	5
1.2 Research question and significance of the study	5
1.3 Two interpretations.....	7
Chapter Two: Theoretical Issues and Conceptual Framework	9
Chapter Three: Experimental Analysis to the Study	13
3.1 Data and methods.....	13
3.2 Comparison of enrolment opportunity among China different areas	14
3.2.1 Comparison of numbers of students signing up for CCEE between urban and rural areas	14
3.2.2 Ratio of institutions' matriculation between urban and rural areas	15
3.2.3 Enrolment student numbers in per 10,000 populations	16
3.2.4 Comparison of matriculation student numbers within the whole country	18
3.2.5 Conclusion	21
3.3 Gaps of higher educational opportunity between urban and rural areas in capital city Beijing.....	22
3.3.1 Comparison of population between urban and rural areas in Beijing and	22
3.3.2 Comparison of matriculation ratio between urban and rural areas in Beijing.....	23
3.3.3 Comparison of matriculation student numbers in per 10,000 populations between urban and rural areas in Beijing.....	24
3.3.4 Comparison of students from different levels of higher education.....	26
3.3.5 Conclusion	28
3.4 comparisons students from urban and rural areas in some different institutes ...	29
3.4.1 Comparison as a whole among five institutes.....	29
3.4.2 Tsinghua University	30
3.4.4 Hebei University of Sciences and Technology	34
3.4.5 Conclusion	36
Chapter Four: An Analysis on the Reason of Regional Difference in Higher Education Enrollment.....	37

4.1 Theoretical analysis	37
4.1.1 The dual economic sector theory in development economics	37
4.1.2 Views on educational equality	40
4.2 Economic reason for gap enlargement in regional education	41
4.3 The effects of education development and reform on urban-rural gap.....	43
Chapter Five: Conclusion.....	49
5.1 Conclusion	50
Annexes.....	52
References.....	54

List of Figures and Tables

Figures

Figure 3.1 Numbers signing up for CCEE in urban and rural areas.....	14
Figure 3.2 Ratio of institutions' matriculation in 1990s.....	15
Figure 3.3 Enrolment student numbers in per 10,000 populations.....	16
Figure 3.4 Gap between urban and rural area in per 10,000 populations.....	17
Figure 3.5 Signing up student numbers and enrolment student numbers in Beijing.....	22
Figure 3.6 Ratio of urban population to rural population in Beijing and changes of signing up student numbers.....	22
Figure 3.7 Matriculation ratios in urban and rural areas in Beijing (1990—2001).....	24
Figure 3.8 Matriculation students in per 10,000 populations in Beijing.....	25
Figure 3.9 Gap of student numbers between urban and rural area in Beijing (1990-2001).....	26
Figure 3.10 Students from urban and rural areas in different types institutes (1999, Beijing).....	27
Figure 3.11 students from urban and rural areas in different levels institutes (1994, Beijing).....	27
Figure 4.1 Comparison of enrolment number between urban students and rural students (2000).....	29
Figure 4.2 Comparison the student numbers of urban and rural students in Tsinghua University (1991—2000).....	31
Figure 4.3 Comparison the student numbers from urban and rural areas in Beijing Normal University (1979—2000).....	33
Figure 4.4 Enrolment of rural students in Beijing Normal University (1979—2002)	34
Figure 4.5 Comparison the student numbers from urban and rural areas in regular four-year level and three-year level in Hebei University of Science and Technology (1996—2001).....	35
Figure 4.6 Enrolment of urban and rural students (1996—2001).....	36

Tables

Table 3.1 Enrolment student numbers in per 10,000 populations.....	17
Table 3.2 Matriculation students in per 10,000 populations (1990).....	18
Table 3.3 Statistical data for matriculation in per 10,000 populations.....	19
Table 3.4 Matriculation numbers in per 10,000 people in different provinces.....	20
Table 4.1 Enrolment student numbers of both urban and rural students in Tsinghua University.....	30
Table 4.2 Enrolment student numbers of both urban and rural students in Beijing Normal University.....	32
Table 4.3 Enrolment student numbers of both urban and rural students in Hebei University of Sciences and Technology	34

Chapter One: Introduction to the Study

1.1 Introduction

In China, the wide gap between urban and rural areas has existed since P.R.China established in 1949. During the process of industrialization and modernization in Chinese cities, Chinese rural areas became more lagging behind. Those rural areas didn't get the same chance as urban areas to develop themselves. People in rural areas still stay at the bottom of the whole society in China. Although the developing transportation and communication instruments make the interactions amongst countries easier, the gap between Chinese urban and rural areas reveals not only in economics and politics, but also in education, culture and all other aspects of people's daily life. During the process of marketization in China, the gap between the rich and the poor is deteriorating. This social background becomes the main cause of the Chinese education equality.

This thesis attempts to elaborate that the disparity between the urban and rural areas in economical terms indeed casts influences on the students' opportunities of entering higher education system in China. This thesis will describe the situation of Chinese educational inequality and its historical causes, and it tries to find out the reasons that affected Chinese education equality.

1.2 Research question and significance of the study

Among all the factors to evaluate social equality, education equality is the most important one. Nowadays, the level of one's education directly influences one's social status and income. The common aim of each country is to offer the education chances equally regardless of their social status. Hence each country wants to extend the enrollment scale of compulsory education and prolong the fixed the number of year for compulsory education to meet that aim. For the development of society, enlarging the number of educated people could improve the production efficiency and accelerate the speed of social modernization.

In China, the large gap between urban and rural areas, which caused by duality of national economy, influences the education equality between urban and rural areas greatly. One main factor of those differences is the allocation of education resources. For instance, teachers' quality, students' dormitory and teaching equipments in urban areas are far better than those in Chinese rural areas. All the well-known institutions are in big or medium cities, but in small cities and countryside. These institutions can access much more patronage than schools in small countries. Therefore, the students, who live in cities, could enjoy better education than students in villages. Furthermore, urban students are entitled more privilege in entrance examinations than rural students. In Chinese higher education system, this difference between students from urban areas and rural areas is more evident: in year 2000, Chinese institutions recruit 1.75 million new students, in which the percentage of students from urban areas is 51.98% and the percentage of students from rural areas is 48.01% (Du, 2000). However, according to the data from Institute of Economics Chinese Academy of Social Science shows that in year 2000, the Chinese city population is only 36.09% of the total Chinese population (China Population Statistic Yearbook, 1990). This means the percentage of new recruits from urban areas and from countries is unproportionate comparing to the percentage of the population in Chinese urban and rural areas. The opportunities for rural students are much less than students in cities. One main reason for this existing inequality in Chinese higher education attributes to Chinese educational policy. Comparising the Chinese educational policy in different periods, it indicates that the education policy has the potential of enlarging the gap of inequality between urban and rural areas as well as making up the gap between these two: from the end of 1970s to the beginning of 1990s, the gap in higher education between Chinese urban and rural areas has shrank since Chinese government paid most of the education expenses for students; but since Chinese higher education system reformed in 1997, the gap has enlarged in recent years because of the increased tuition. Some researches (Zeng, 2000) show that the economic difference is not the only reason for this status; government policy on higher education plays an important role as well. In resent years, Chinese higher education is approaching to marketization stage, its main reforms lie in the rapid enrolment expansion and steady increased tuition since the end of the 1990s to the present. These reforms have triggered a number of

researches, one of them is the equality in Chinese higher education. This thesis will discuss the equality of Chinese higher education in terms of the wide gaps between Chinese urban and rural areas.

This thesis will 1) state the changes in Chinese higher education in both urban and rural areas; 2) describe the socio-economic background in Chinese higher education and analysis the policy that brings educational inequality; 3) state the changes that were caused by the expanding enrolment and increasing tuition now and forecast the trend of changes; 4) give some advice on how to shorten the gap between Chinese urban and rural areas on higher education and improve the educational equality in Chinese higher education.

This thesis primarily used document analysis and quantitative research approach. Qualitative research approach was conducted as well, but not as much as the other two methods.

1.3 Two interpretations

First, two concepts: higher education and equality of educational opportunity will be interpreted as follows:

- 1) Higher education: in common sense, higher education means post-secondary education; it includes not only normal institutions but also private institutions, adult institutions and vocational institutions. But this thesis will only discuss about normal institutions in China. Because: I) graduates from regular institutions in China play the most crucial role in Chinese society. In present-China, the whole society and Chinese government still pay more attention to regular institutions and their students. Therefore, researches on regular institutions are much more significant; II) data concerning regular institutions are abundant and easier to access (Yuan, 1999).
- 2) Equality of educational opportunity: educational equality is the aim of present educational policy in every country and it is also an important indicator to evaluate the degree of development of higher education. It means each student has the same

opportunity of accessing higher education, every student has the equal opportunity to be educated, and every student has the equal opportunity to earn his/her degrees(Yuan, 1999). This thesis mainly discusses the equal opportunity of enrolment.

This study will analysis if the percentage of students with different socio-economic background is proportionately enrolled in higher education. In this thesis, different socio-economic background students will be divided into two categories: urban students and rural students.

Chapter Two: Theoretical Issues and Conceptual Framework

The study of equality in higher education in western developed countries is much earlier than in China. Since 1950s, researchers on education and society have focused on equality of educational opportunity particularly with respect to expansion and evolution through democratization and massification in higher education. With the rapid development of economy in western countries, i.e. United States, UK and Germany, approached to massification in higher education in the period from 1960s to 1970s. Nevertheless, these countries still have not reached the absolute equality; wide gaps still could be seen among different races, different classes and different socio-economic background at that time. Therefore, researchers paid most of their heed to how to improve equal opportunity in the whole society and the equality in educational terms.

Husen (1986:2001) mentioned: “Within the natural home of the principle of equality of educational opportunity—i.e., the liberal tradition—three theories of social justice predominate: libertarianism, utilitarianism, and liberal egalitarianism.”

Libertarianism suggests that the society should eliminate barriers for those talent-disadvantaged children to access to education (Zhang, 1989).

Utilitarianism is the form of liberal theory that has predominated through much of the nineteenth and twentieth centuries. Formally, it is an amazingly simple theory: the rightness of an action or policy is judged in terms of whether it satisfies the principles of maximizing the total good (Husen, 1986:2001). According to this theory, noble people and common people went different school is viewed as an action to maximizing their good.

Liberal egalitarianism lays stress on the principle of equality. It claims that inequality is *prima facie* objectionable and therefore must be justified (Husen, 1986:2001). It suggests that the duration of compulsory education should be prolonged to eliminate the inequality of educational opportunity (Zhang, 1989).

American philosopher John Rawls in his “A Theory of Justice” mentioned the principle of redress. He said “the principle holds that in order to treat all persons equally, to provide genuine quality of opportunity, society must give more attention to those with fewer native assets and to those born into the less favorable social position. The idea is to redress the bias of contingencies in the direction of equality (Rawls, 1972:105)”.

In western history, the changes of equal educational theory are equal to western countries’ economical and social development (Zhang, 1989). The level of education that common child received is a great indicator of evaluating the degree of equality in a given society. And for children from upper class, their educational level is always at the top of the whole society.

In China, society and researchers laid stress on equal education since the early of 1990s. In early 1990s, the discussion mainly focused on 1) differences between urban area and rural area caused by allocating educational resources differently; 2) equality of educational opportunity on Chinese compulsory education. With the evolution of Chinese higher education, and the rapid enrolment expansion and charge of tuition, equality of educational opportunity on Chinese higher education attracted a huge number of people. Here are three controversial questions discussed in Chinese higher education system (Du, 2000):

- 1) Disproportion of educational resources: the disproportion between urban and rural areas and between developed and less-developed areas. It was viewed that teachers’ quality and the quota of recruitments for different areas are two important facets of educational resources.

The situation for present Chinese teachers is that most high quality teachers stay in urban areas and developed areas. The majority of good quality teachers are reluctant to settle in rural areas, there are merely a few numbers of teachers willing to opt for those areas.

Meanwhile, the educational policy of allocating quota of recruitments has been adopted since 1977 when national matriculation was restored. Chinese Ministry of Education allocated different recruitment quota according to the regional-specific situation. Usually,

urban and developed areas can be entitled greater quota than rural and less-developed areas.

2) Researches regarding higher educational equality and efficiency: it mainly discusses the pay-off of higher education. Some researchers discuss that the increasing tuition in higher education is unfair to those students from families with needy economic background. Because the central government overmuch invested in higher education before 1997 whilst the basic education was more than necessary to be invested into, by doing so, government could both enlarge the education system and improve social equality (Zhong & Lu, 1999). From the standpoint of the massification of Chinese higher education: the process of massification does not mean that the society has achieved equality of opportunity. Since higher educational beneficiaries are not the only indicator to measuring social efficiency, those who missed the chance of enjoying the post-graduate education also offer the hint of the higher educational equality (Liu, 1999). Some researchers drew the conclusion by analyzing the influence on rapid enrolment expansion from the view of area differences: following the educational principle of “efficiency comes first, fairness is a must”, higher education expansion has widened the gap among various areas, especially the gap between western areas and eastern areas. Only the development of higher education in western areas could narrow the gap (Geng, 2000).

3) Experimental study on accessing opportunity to higher education: the earliest experimental study on this was the investigation of 1708 students in institutions in Fujian Province. The investigation was about those 1708 students’ families’ social background. Amongst students in popular programs, the percentage of those from intellectual families and from better-off families was 57.24%, the percentage of those from blue collar families and from peasant families was barely 34.06%. However, students in less popular programs received little attention, the percentage of those from intellectual families and from better-off families were 38.3%, and those from blue collar families and from peasant families were 50.17% (Fang, 1996).

An investigation of three institutions in Liaoning Province showed that from the end of 1980s to the beginning of 1990s, when higher education followed “double-track system”, which means students were divided into two categories: one was paid by government and the other was self-financing. The government-sponsored students outnumbered the self-financing students from blue collar and peasant families. Since year 1997, Chinese higher education has merged those two tracks and has launched a new tuition policy; some students from families with worse economic background cannot afford the expensive tuition. Some students dropped out of institutions, and some even did not have chances of entering higher education. Economic inequality results in educational inequality (Zhang, 2000).

An investigation of 69258 students in 1998 showed that the percentage of students from urban areas was 52.8%; the percentage of students from upper social class background was 31.3%, from labors’ families was 21.2% and from farmers’ families was 31.8% (Xie, 1999).

The data from a spot check of 1000 students across the whole country in 2002 revealed more specifically: nearly 20% of Chinese families were high-income families, and 70% of institution students belonged to those high-income families; at the same time, nearly 40% of Chinese families were low-income families, and only 21.6% of institution students were from these families. The opportunities for children from urban families were 12 times more than those from rural families (Ma, et al., 2002).

There is a shortage of research which only focuses on the wide gap in higher education between urban and rural areas in these theoretical issues above mentioned. The wide gap between urban and rural areas is the most vital factor that influences equality of educational opportunity.

Chapter Three: Experimental Analysis to the Study

3.1 Data and methods

As mentioned previously in Chapter 1, the data for this study were collected using a document analysis. Population in Chinese urban areas and population in Chinese rural areas are all from “China Population Statistic Yearbook”. Students number from urban and rural areas are all from “China education Statistic Yearbook”.

Two questions will be discussed to measure the equality of educational opportunity between urban and rural areas: 1) If the enrolment opportunity in higher education is proportionate between urban and rural areas; 2) If the distribution of students in dissimilar levels of institutions is proportionate between urban and rural areas.

Here are three standards to measuring the first question: students’ numbers of signing up for Chinese College Entrance Examination (CCEE) in both urban and rural areas; the students’ ratio of taking institutions matriculation in both urban and rural areas; the matriculation numbers in per 10,000 people in both urban and rural areas. The three standards will be elaborated below: 1) the data of Students’ numbers that sign up for Chinese College Entrance Examination in both urban and rural areas were collected from “China Higher Education Recruitment Yearbook” and statistical data from educational administrations. This standard shows changes of examination’s students’ numbers between urban and rural areas; 2) matriculation students’ numbers / Students’ numbers that sign up for exam will get the ratio of institutions matriculation in urban and rural areas. Data were derived from the same source as 1); 3) matriculation students’ numbers/population base will get the matriculation numbers in per 10,000 populations. Matriculation students’ numbers are from “China Higher Education Recruits Yearbook” and population base is from “China Population Statistic Yearbook”. This standard shows the allocation of educational opportunity between urban and rural areas.

In China, higher education institutions are basically divided into three different levels: regular university (four or five years university), which will lead to a Bachelor’s degree; three-year college and higher vocational school, which will not lead to a degree. The

questions and standards mentioned above will also discussed in these three different educational levels.

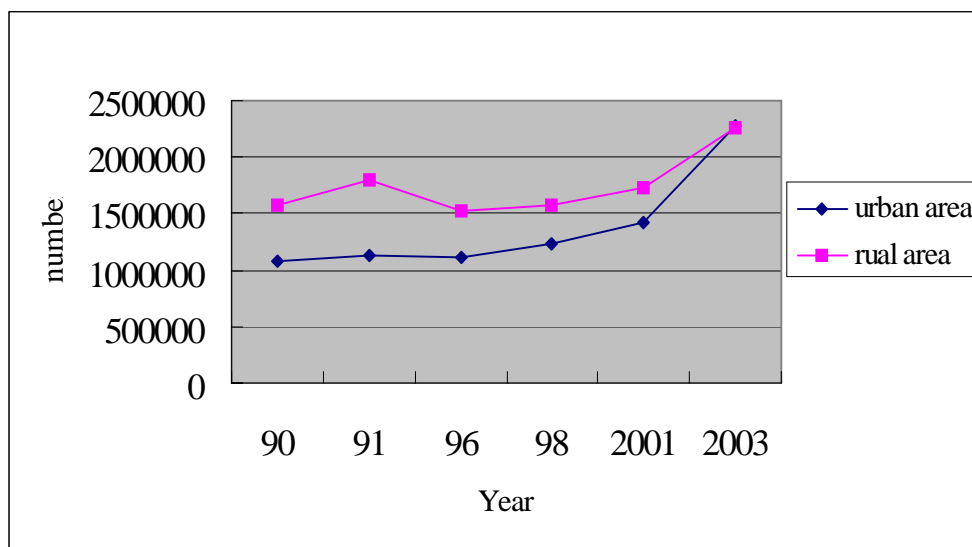
The study mainly analyses the changes of educational opportunity and allocation of educational opportunity in different timeframe and various regions. Timeframe will be introduced to discuss the historical changes it underwent and the development tendency will also be unveiled. The regional-specific studies will be introduced to discuss the distribution of educational resources and the distribution of educational opportunity in different provinces in a given period. The processing of data will use charts.

3.2 Comparison of enrolment opportunity among China different areas

3.2.1 Comparison of numbers of students signing up for CCEE between urban and rural areas

Figure 3.1 presents numbers of students signing up for CCEE in different years. There is obvious difference between urban and rural areas in 1990s.

Figure 3.1 Numbers of students signing up for CCEE in urban and rural areas



Source: Data of year1990, 1991 are from China Higher Education Recruitment Yearbook (1990,1991), data of year 1996,1998,2001,2003 are all from Ministry of Education of the People's Republic of China (2003).

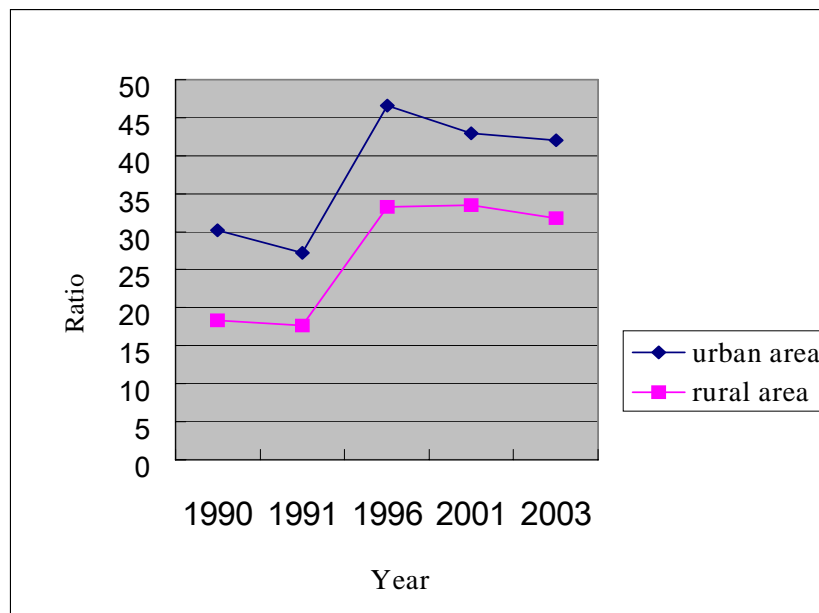
From year 1999 to year 2000, numbers of students signed up for CCEE in rural area were more than those from urban area. The stable growth of numbers signed up for CCEE in urban area is obvious; however in rural area, numbers changed comparatively. Since Chinese higher education expanded its enrolment in 1999, numbers of students registered in CCEE have grown in both urban and rural areas. The growing speed in urban area was much faster than in rural area. In 2001, numbers of students signed up for CCEE in urban area exceeded numbers of students in rural area.

During the past ten years, the quality and the development of secondary schools in urban area were far better than in rural area. The rapid enrolment expansion in Chinese higher education was a main factor to stimulate the development of secondary schools. Obviously, this stimulation had much better result in Chinese urban area.

3.2.2 Ratio of institutions' matriculation between urban and rural areas

Figure 3.2 shows the change on matriculation in both urban and rural areas.

Figure 3.2 Ratio of institutions' matriculation in 1990s



Source: Data of year 1990, 1991 are from China Higher Education Recruitment Yearbook (1990, 1991), data of year 1996, 1998, 2001, 2003 are all from Ministry of Education of the People's Republic of China.

Ratio of institutions' matriculation shows the teaching quality of secondary schools in urban and rural areas respectively. It is clear to see from figure 3.2 that teaching quality in urban area was quite better than in rural area. The main reason for this was the disproportion of allocation of education resources between urban and rural areas, for example: teachers' quality. The development tendency in urban area and rural area showed that changes in urban area are the same as in rural area from 1990 to 1998. The total number has expanded from 1990 to 1996; numbers both in urban area and rural area have increased greatly. But after 1998, the total number of matriculation was decreasing.

3.2.3 Enrolment student numbers in per 10,000 populations

Figure 3.3 presents enrolment student numbers in per 10,000 people in urban and rural areas.

Figure 3.3 Enrolment student numbers in per 10,000 populations

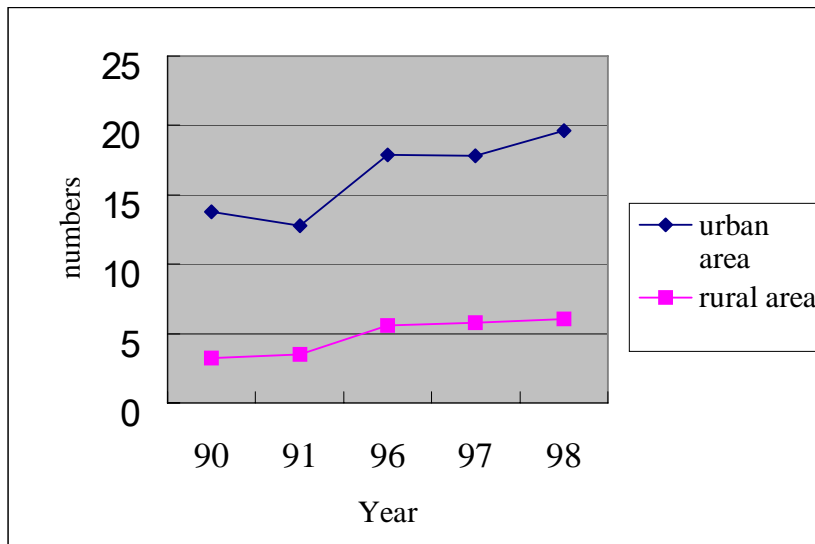


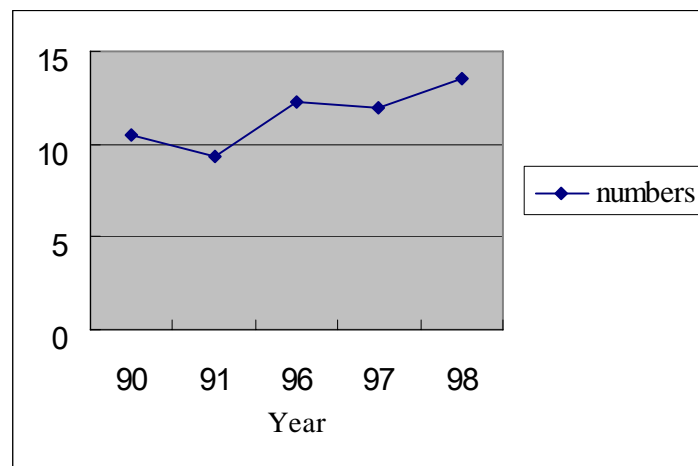
Table 3.1 Enrolment student numbers in per 10,000 populations

Year	Urban area	Rural area	Urban area minus rural area
1990	13.75	3.23	10.52
1991	12.8	3.51	9.29
1996	17.85	5.6	12.25
1997	17.78	5.8	11.98
1998	19.63	6.07	13.56

Source: Data of matriculation numbers in year 1990 and 1991 are from China Higher Education Recruitment Yearbook (1990, 1991), data of 1996, 1997 and 1998 are from Ministry of Education of the People's Republic of China. Data of population in urban and rural areas are from China Population Statistic Yearbook.

Data above depict that the urban area took a great advantage of matriculation in higher education. Although from 1990 to 1998 the numbers were growing in both areas, the numbers in urban area were growing much faster than in rural area. And at the same time, the gap between urban and rural areas became wider. Taking the comparison between urban and rural areas within the whole country, the gap is from 10.52 in 1991 to 13.56 in 1998 in per 10,000 populations. Figure 3.4 shows the gaps in different years.

Figure 3.4 Gap between urban and rural area in per 10,000 populations



Source: data are from China Higher Education Recruitment Yearbook.

3.2.4 Comparison of matriculation student numbers within the whole country

Table 3.2 shows the matriculation numbers in each Chinese province in per 10,000 populations in 1990.

Table 3.2 Matriculation students in per 10,000 populations (1990)

	Urban area	Rural area	Urban area/rural area
Average	13.75	3.23	4.256965944
Beijing	24.62	3.53	6.974504249
Tianjin	15.08	7.32	2.06010929
Hebei	11.84	3.38	3.50295858
Shanxi	18.5	3.7	5
Inner Mongolia	9.23	4.81	1.918918919
Liaoning	10.74	6.06	1.772277228
Jilin	13.21	4.59	2.877995643
Heilongjiang	9.32	3.47	2.685878963
Shanghai	15.81	6.45	2.451162791
Jiangsu	9.87	4.84	2.039256198
Zhejiang	10.47	3.88	2.698453608
Anhui	12.82	2.46	5.211382114
Fujian	20.7	4.05	5.111111111
Jiangxi	17.93	2.23	8.040358744
Shandong	12.01	3.28	3.661585366
Henan	13.09	2.65	4.939622642
Hubei	9.1	5.34	1.70411985
Hunan	17.71	2.01	8.810945274
Guangdong	10.04	4.06	2.472906404
Hainan	23.67	3.46	6.841040462
Guangxi	14.95	1.79	8.351955307
Sichuan	12.08	2.42	4.991735537
Guizhou	20.98	1.4	14.98571429
Yunnan	24.98	1.85	13.5027027
Tibet	32.24	0.09	***** ¹
Shanxi	18.46	3.05	6.052459016
Gansu	18.26	2.95	6.189830508
Qinghai	26.02	2.41	10.7966805
Ningxia	23.54	5.84	4.030821918
Xinjiang	18.98	3.48	5.454022989

Source: data are from China Higher Education Recruitment Yearbook (1991) and China Population Statistic Yearbook.

Tibet is a special area. It has its own cultural tradition and religion tradition

By using the Statistical Package for the Social Sciences (SPSS) to code and process the data above, Table 3.3 was generated indicating variance, standard deviation and coefficient of variation between urban and rural areas.

Table 3.3 Statistical data for matriculation in per 10,000 populations

	Urban area	Rural area
Variance	35.07147	2.478127
Standard deviation	5.922117	1.574207
Median	15.445	3.465
Coefficient of variation	0.4306	0.487

Table 3.2 provides a comparison of matriculation numbers between urban and rural areas amongst the provinces. The data of 1990 in table 3.2 indicates matriculation numbers in urban area are 4.25 times than in rural area. The higher educational opportunity for urban citizens is much higher than rural citizens.

Table 3.3 reveals that coefficient of variation in urban area is 0.4306 and in rural area is 0.487. It means the development of educational opportunity is not as balanced in rural area as in urban area. The development of educational opportunity in different rural areas is also unbalanced. The growing pace of higher educational opportunity in urban area is much faster and balanced. As a whole, Chinese urban areas develop faster and significant, nevertheless, the development in rural areas is obviously slow and unbalanced.

In order to compare the gaps between urban and rural areas in different provinces, table 3.4 is introduced to explain the gaps. The comparison standard is the matriculation numbers in per 10,000 populations in urban and rural areas.

Table 3.4 Matriculation numbers in per 10,000 people in different provinces

AREA I (0-3.0)	AREA II (3.0-8.0)	AREA III (>8.0)
Hubei Liaoning Inner Mongolia Jiangsu Tianjin Shanghai Guangdong Heilongjiang Zhejiang Jilin	Hebei Shandong Ningxia Henan Sichuan Shanxi Fujian Anhui Xinjiang Shanxi Gansu Hainan Beijing	Jiangxi Guangxi Hunan Qinghai Yunnan Guizhou Tibet

Table 3.4 indicates gap between urban students and rural students in matriculation numbers in per 10,000 people. Area I includes northeast three provinces and coastal developed provinces, which have the narrowest gap. The largest gap exists in area III, five out of seven provinces are western less-developed provinces. In Chinese middle and western urban areas, educational opportunities are quite easier to access; whilst those rural areas are short of educational opportunity. The matriculation numbers in per 10,000 populations in urban areas of western provinces (Guizhou, Yunnan, Ningxia, Qinghai, Tibet) are more than other provinces. Nevertheless, the matriculation numbers in per 10,000 populations in those rural areas are fewer than other provinces. An estimate is drawn: the gaps of educational opportunity between urban and rural areas are quite evident in Chinese middle and western provinces. The matriculation numbers in per 10,000 populations in western rural areas are fewer than in both other provinces' rural areas and western urban areas. The gaps are smaller in eastern and costal provinces.

Following discussion will focus on Hubei Province and capital city Beijing. Since the economy in Hubei Province is not developed enough, but the gaps between urban and rural areas in this province are very small. And capital city Beijing is a quite developed city both in economy and education, but the gap is big.

3.2.5 Conclusion

Based on the four different comparisons above, there are big differences of distribution on higher educational opportunity between urban and rural areas. The differences become more evident in recent 10 years: urban areas phase in balanced fast development but rural areas still stay in unbalanced slow development.

In 1998, matriculation numbers in urban areas are 1.32 times more than in rural areas, and matriculation numbers in per 10,000 populations in urban areas are as 3.233 times as in rural areas. The data of year 1996 and year 1999 indicate that the rapid enrolment expansion is beneficial to both urban and rural areas. But the expansion of registered numbers and matriculation number in urban areas in urban areas is much faster than in rural areas.

The data of 1990s shows the dramatic enrolment change was not caused by the gap of ratio of matriculation between urban and rural areas, but by the difference of signing up numbers of students for CCEE and matriculation numbers between urban and rural areas. Therefore, more students can enjoy higher educational opportunity from expanded higher education enrolment. But the expansion cannot narrow gaps between urban and rural areas. Instead, higher education expansion enlarges gaps and imbalance between urban and rural areas.

The comparison amongst provinces reveals that in 1990 matriculation numbers in per 10,000 populations in each province's rural area are universally lower than average number that is 5.0510. But in urban areas matriculation numbers are higher than average. The degree of polarization between urban and rural areas is quite high in Chinese higher education.

Based on the comparison among area I, II and III in table 3.4, differences of educational opportunity in northeast three provinces and eastern costal provinces are very small. The biggest difference in China exists in western inner provinces. The weakest group is the

students in western rural area. These situations indicate educational opportunity has a very close relationship with local economic development.

3.3 Gaps of higher educational opportunity between urban and rural areas in capital city Beijing

3.3.1 Comparison of population between urban and rural areas in Beijing and comparison of signing up numbers (year 1990—2001)

Figure 3.5 indicates the signing up and enrolment student numbers in urban and rural areas in Beijing.

Figure 3.5 Signing up student numbers and enrolment student numbers in Beijing

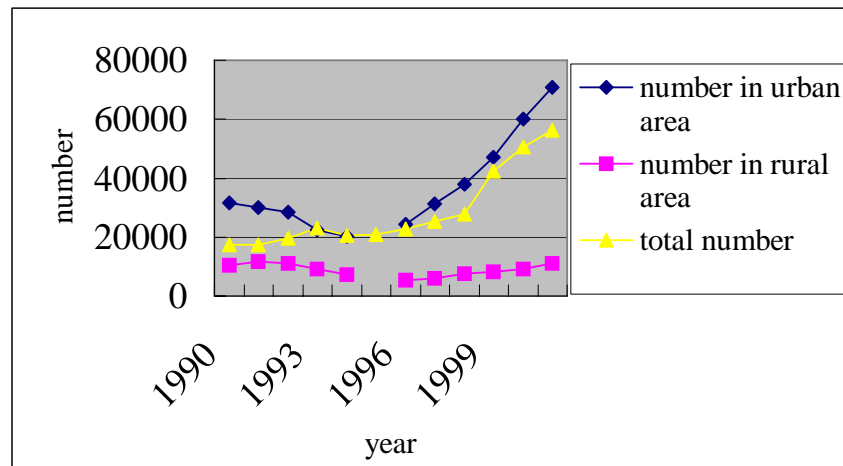
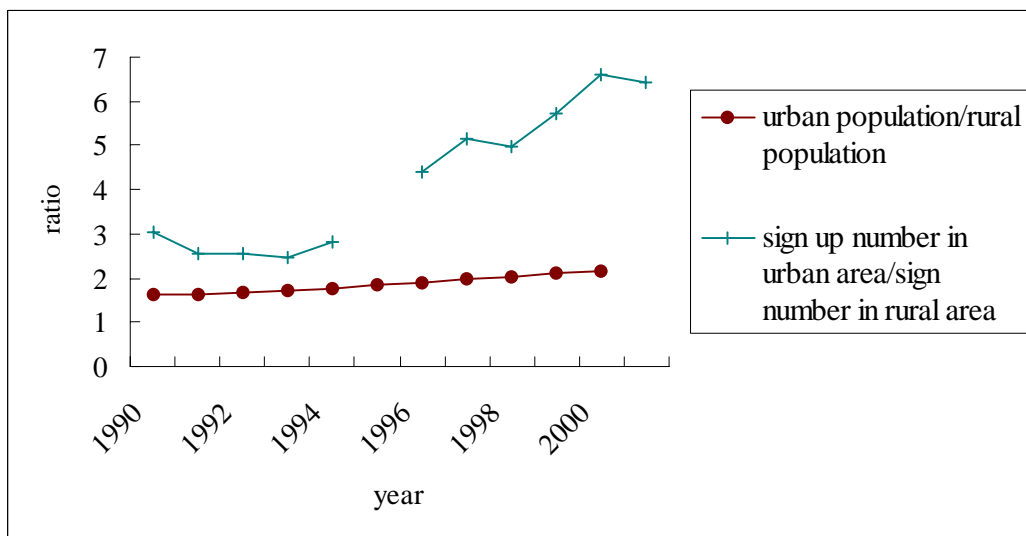


Figure 3.6 Ratio of urban population to rural population in Beijing and changes of signing up student numbers



Source: Data of higher education matriculation are from Beijing Higher Education Recruitment Annual Report (1991—2002, without 1995). Data of population in Beijing are from China Population Statistic Yearbook.

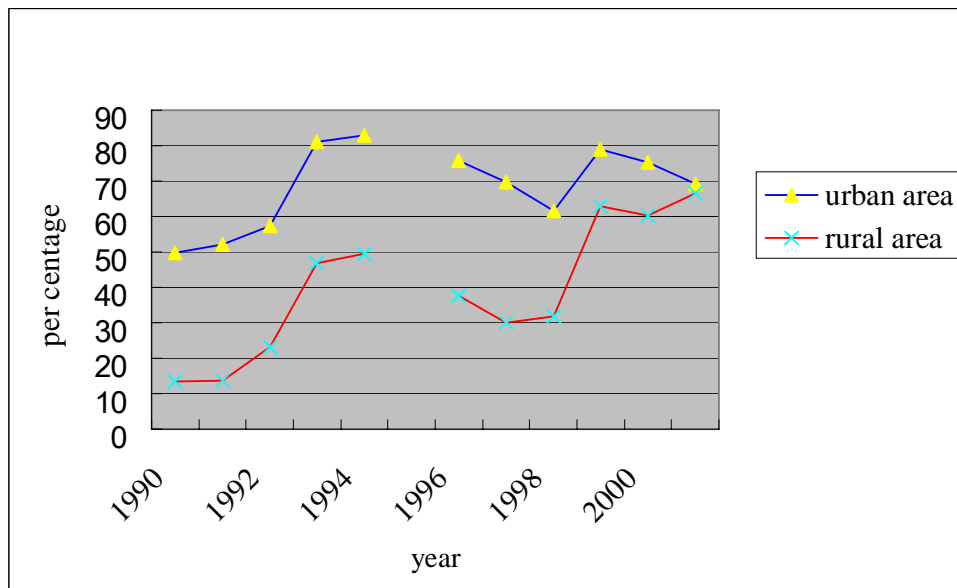
Figure 3.5 indicates after 1996 the number of students signing up for CCEE in urban area is evidently greater than in rural area. From 1990 to 2001, numbers of students signing up for CCEE in rural area were fluctuating: first decreasing then increasing. The gap between urban and rural areas after 1996 was enlarging. In urban area, the correlation coefficient of signing up numbers to matriculation numbers is 0.943081; and in rural area, the correlation coefficient is 0.092669. This means with the rapid enrollment expansion, students in urban area are able to get far more opportunity in higher education than students in rural area. This situation is in accordance with **3.2.4**.

In Figure 3.6, the curve of ratio of signing up numbers in urban area to rural area shows the numbers of students in urban area who have signed up for CCEE are far more than in rural area. The curve of ratio of urban population to rural population in Beijing shows the ratio dose not change too much during past ten years. This means it's disproportionate by comparing the growth speed of citylization of Beijing to the growth speed of numbers of urban area students signing up for CCEE. So the main reason for the growth of students' numbers signing up for CCEE in urban area is not citylization but the Chinese educational policy.

3.3.2 Comparison of matriculation ratio between urban and rural areas in Beijing

Here it is going to present the matriculation ratio between urban and rural areas in Beijing. Figure 3.7 shows the matriculation ratio clearly.

Figure 3.7 Matriculation ratio in urban and rural areas in Beijing (1990—2001)



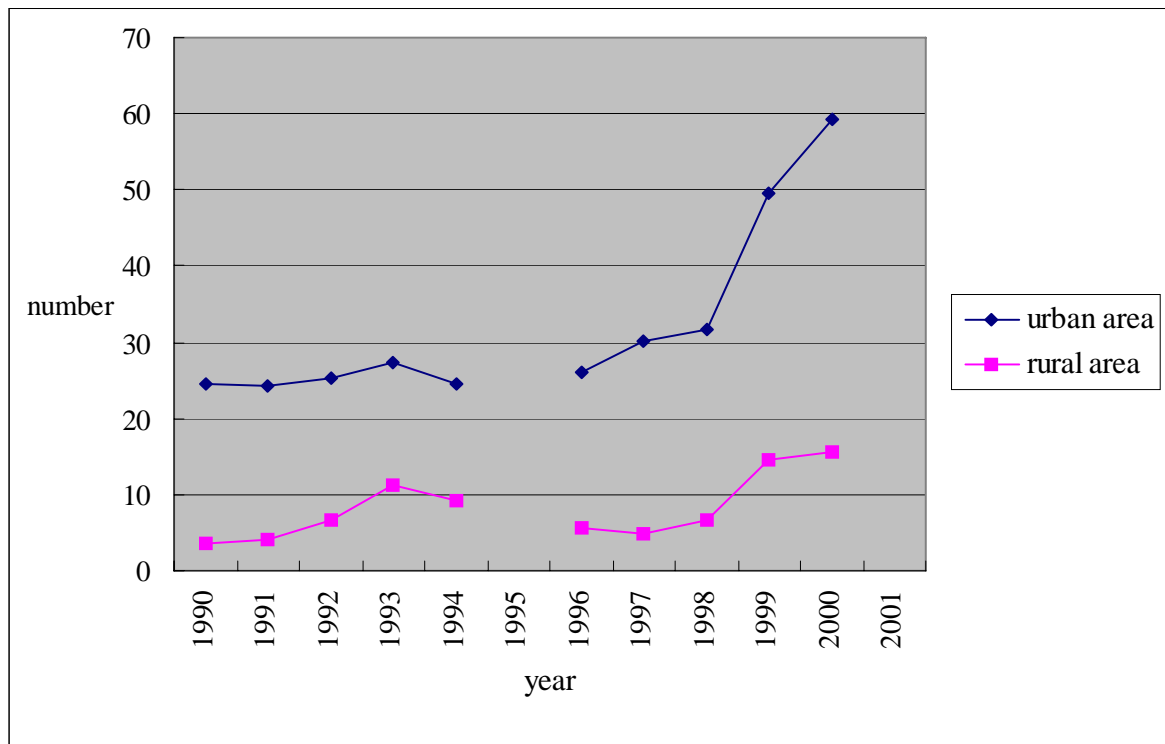
Source: Data of higher education matriculation are from Beijing Higher Education Recruitment Yearbook (1990—2002, without 1995).

Curve of matriculation ratio of urban area to rural area reveals that the gap between urban and rural areas is shrinking, especially after 1999, with the enrolment expansion the matriculation numbers in rural areas are increasing but the growth speed in urban areas is slowing down. Therefore, in 2001 the gap between urban and rural areas is the smallest in Chinese educational history. But this situation only indicates the gap of matriculation ratio between urban and rural areas is becoming smaller, not means the gap of higher education between urban and rural areas in Beijing is shrinking.

3.3.3 Comparison of matriculation student numbers in per 10,000 populations between urban and rural areas in Beijing

Figure 3.8 indicates the matriculation students in per 10,000 people in Beijing.

Figure 3.8 Matriculation students in per 10,000 populations in Beijing

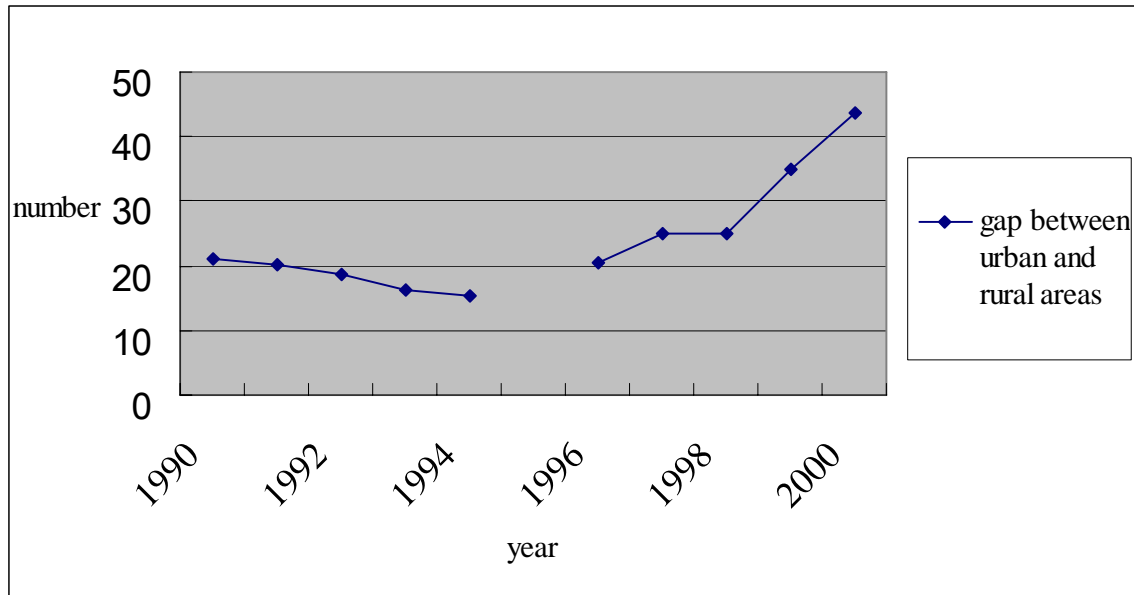


Source: Data of higher education matriculation are from Beijing Higher Education Recruitment Annual Report (1991—2002, without 1995). Data of population in Beijing are from China Population Statistic Yearbook.

Figure 3.8 clearly shows the development of higher education in Beijing during past ten years. From 1990 to 1994, gap between urban and rural area in Beijing was shortening, but since 1996, the gap has enlarged again. Since 1999 the matriculation numbers in per 10,000 populations have grown in both urban and rural areas, and in urban area the growth is more significant. Since 1999 the gap between urban and rural area has enlarged from year to year. In 2001 the gap of numbers grew to 43.65, the numbers doubled than in 1990 when the gap of numbers is only 21.08.

Figure 3.9 is the result of figure 3.8.

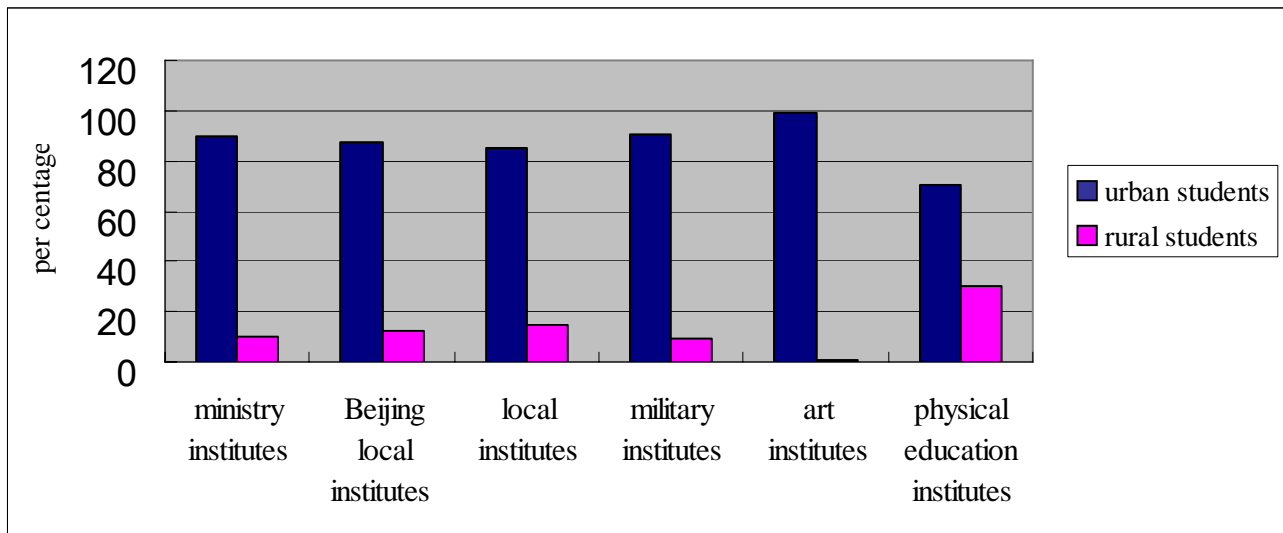
Figure 3.9 Gap of student numbers between urban and rural area in Beijing (1990-2001)



3.3.4 Comparison of students from different levels of higher education

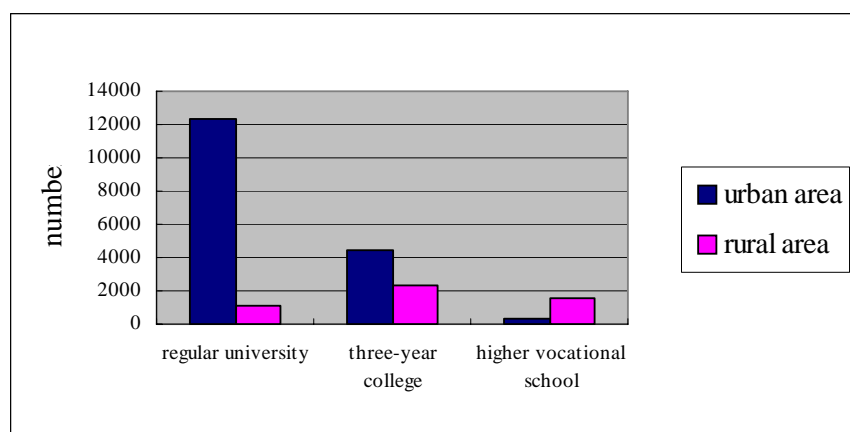
Figure 3.10 indicates the students' enrolment in different levels of higher education in Beijing in 1999. Students from urban areas in military institutes and ministry institutes are nearly 90 per cent of the total students. Students from urban areas in art institutes are nearly 100 per cent. And in 1999, the average percent for students from urban areas in all different institutes is 87.71 in Beijing. Students from rural areas in physical education institutes are nearly 30 per cent of total students. The data mean students from urban areas are more competitive in military and art institutes than students from rural areas. But in those physical education institutes, students from rural areas are more competitive.

Figure 3.10 Students from urban and rural areas in different types institutes (1999, Beijing)



Sources: Data of 1999 and 1994 are from Beijing Higher Education Recruitment Annual Report (2000).

Figure 3.11 Students from urban and rural areas in different levels institutes (1994, Beijing)



Sources: Data of 1994 in Beijing are from Beijing Higher Education Recruitment Annual Report (1995).

Comparing the students' enrolment in regular universities, in three-year colleges and in higher vocational schools in 1994, the data in figure 3.11 shows that the students from urban areas in regular universities and in three-year colleges are higher than in vocational schools. Respectively they are 91.4 per cent and 82.6 per cent of total students. Students from rural areas in three-year colleges are 65.14 per cent of total students. This means students from urban areas are more competitive than students from rural areas in higher-level institutes. This imbalance of enrolment between students from urban and rural areas is more evident in higher vocational school. In higher vocational schools, students from urban areas are less than 20 per cent of total students. The imbalance indicates that in Beijing, students from urban areas prefer to get their higher education in regular universities that are the highest level of higher education. The opportunities of higher education for those students from rural areas are mainly in three-year colleges and higher vocational schools.

3.3.5 Conclusion

Analyzing some data in Beijing during the past ten years, a tendency has been concluded: higher education in Beijing during past ten years developed very fast, students signing up for CCEE and students numbers of matriculation are all increasing from year to year. Although the increasing enrolment in higher education influences both urban and rural areas, the large gaps between urban and rural areas still exist. Students signing up for CCEE in urban areas and matriculation numbers in per 10,000 populations in urban areas are far more than the number in rural areas. And since 1999, the gap enlarged between urban and rural areas.

The big difference also exists in the competition for different types and levels institutes between students from urban and rural areas. As a whole, students from urban areas are more competitive than students from rural areas. Students who are from urban areas have advantages in enrolment in military, art and ministry institutes. And regular universities recruit more urban areas' students. All of these reveal that there is big difference on allocation of higher education opportunities between urban and rural areas.

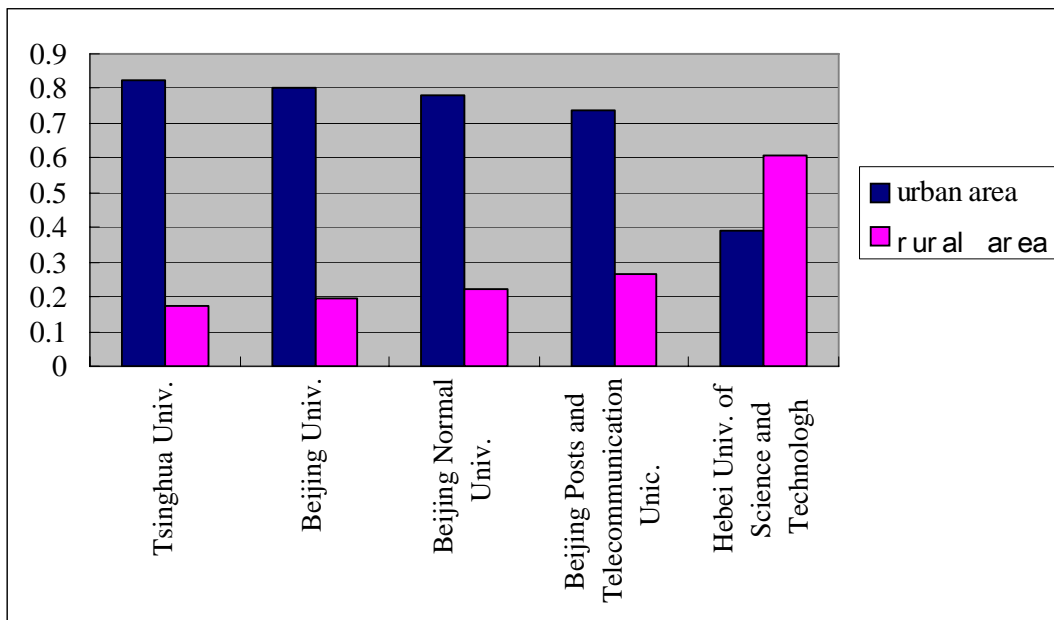
3.4 comparisons students from urban and rural areas in some different institutes

Five different institutes have been chosen as examples to reveals the gaps and changes of allocation of higher education opportunities between urban and rural areas around the whole country.

3.4.1 Comparison as a whole among five institutes

In figure 4.1, in national first level universities such as: Beijinging University, Tsinghua University, Beijing Normal University, Beijing University of Posts and Telecommunications, urban students are more than rural students. But in local universities such as: Hebei University of Science and Technology, rural students are more than urban students. This reveals urban students get much more opportunities for better quality education than rural students. Rural students get more opportunity in local higher education.

Figure 4.1 Comparison of enrolment number between urban students and rural students (2000)



Sources: Data of Tsinghua University, Beijing Normal University, Beijing University of

Posts and Telecommunications, Hebei University of Sciences and Technology are from their department of education administration; data of Beijing University are from Wensheng Li: Chinese Economic Development Strategy and Equality of Chinese Higher Education Opportunity, 2003.

Following are some analysis of three universities of the five; some factors that influence the allocation of higher education opportunities could be found from analysis.

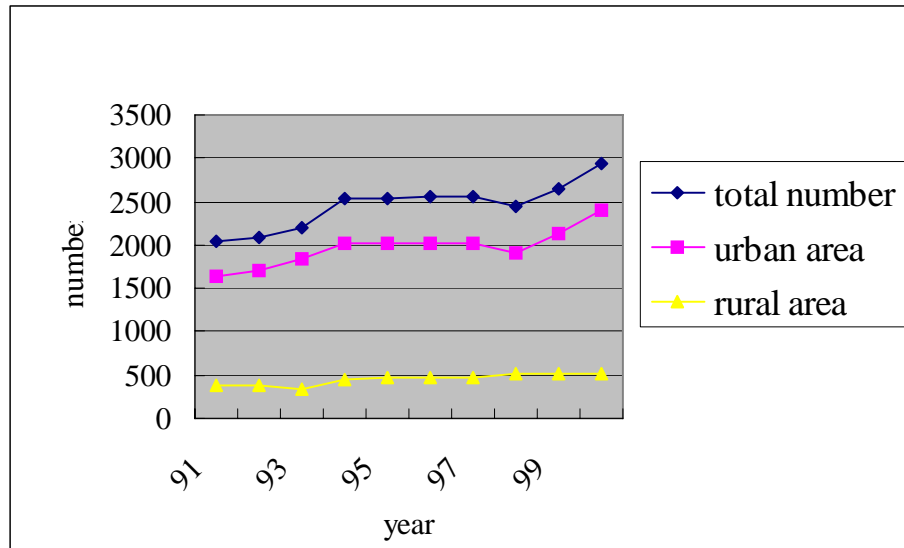
3.4.2 Tsinghua University

Table 4.1 and figure 4.2 all show the changes of enrolment numbers between urban and rural students in different years.

Table 4.1 Enrolment student numbers of both urban and rural students in Tsinghua University

Year	Total number	Urban students	Ratio	Rural students	Ratio
1991	2032	1647	0.810531	385	0.189469
1992	2080	1695	0.814904	376	0.180769
1993	2191	1844	0.841625	347	0.158375
1994	2537	2016	0.794639	444	0.17501
1995	2541	2015	0.792995	472	0.185754
1996	2559	2026	0.791716	480	0.187573
1997	2559	2020	0.789371	477	0.186401
1998	2443	1911	0.782235	510	0.20876
1999	2641	2126	0.804998	507	0.191973
2000	2929	2410	0.822806	518	0.176852

Figure 4.2 Comparison the student numbers from urban and rural areas in Tsinghua University (1991—2000)



Sources: Data are from Department of education administration in Tsinghua University.

The data from Tsinghua University during past ten years show that the number of rural students didn't change too much, but the number of urban students was changing from year to year evidently. And the tendency of this change in urban students' number is almost same as the change in total students' numbers, especially after year 1998. This means the change in enrolment number influenced urban students greatly. The enrolment of urban students increased much faster than rural students. From 1991 to 1997, rural students' number is nearly 17% to 20% of total students. But since 1998, the rural students' number has decreased.

3.4.3 Beijing Normal University

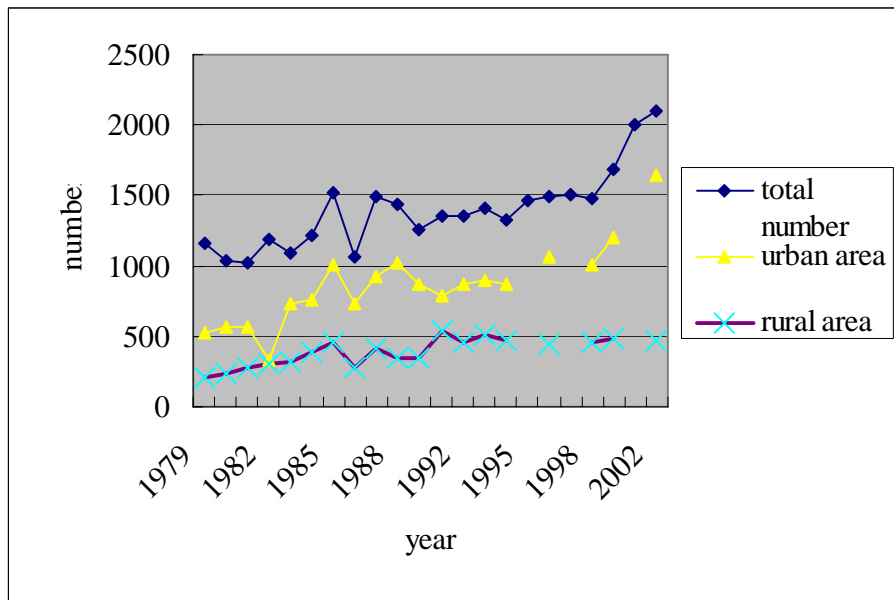
Here it is going to analysis the data of Beijing Normal University.

Table 4.2 Enrolment student numbers of both urban and rural students in Beijing Normal University

Year	Total number	Ratio of urban students	Ratio of rural students	Urban students/rural students
1979	1164	0.449313	0.180412	2.490476
1980	1033	0.553727	0.228461	2.423729
1981	1028	0.552529	0.26751	2.065455
1982	1190	0.27395	0.259664	1.055016
1983	1090	0.668807	0.288073	2.321656
1984	1217	0.628595	0.32046	1.961538
1985	1521	0.663379	0.298488	2.222467
1986	1069	0.689429	0.258185	2.67029
1987	1495	0.622742	0.275585	2.259709
1988	1436	0.713788	0.238858	2.988338
1990	1260	0.692857	0.276984	2.501433
1991	1358	0.583211	0.401325	1.453211
1992	1358	0.636966	0.330633	1.926503
1993	1403	0.64	0.36	1.777778
1994	1330	0.65	0.35	1.857143
1995	1470			
1996	1495	0.707	0.293	2.412969
1997	1504			
1998	1472	0.686821	0.309103	2.221978
1999	1686	0.711744	0.28707	2.479339
2000	2001			
2002	2105	0.780523	0.223753	3.488323

Sources: Data are from Department of education administration in Beijing Normal University.

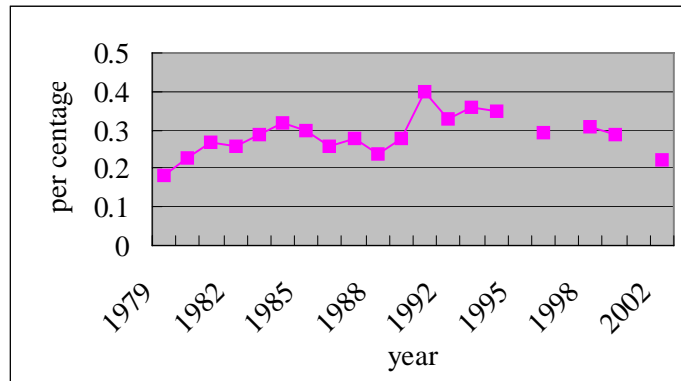
Figure 4.3 Comparison the student numbers from urban and rural areas in Beijing Normal University (1979—2002)



Comparing Figure 4.3 with Figure 4.2, the changes of enrolment number in Beijing Normal University from 1979 to 2000 are quite similar to Stingham University. The changes of enrolment number influenced urban students much than rural students.

Figure 4.4 illustrates that from 1979 to 1991, rural students in Beijing Normal University have increased year by year. But since 1993, rural students have decreased year by year. Key reasons for these changes are: 1) in present ten years, teacher plays a very important role in Chinese society, its ascending social class attracts more and more urban students; 2) Since 1997, the increasing tuition became the biggest barrier for rural students to access higher education.

Figure 4.4 Enrolment of rural students in Beijing Normal University (1979—2002)



3.4.4 Hebei University of Sciences and Technology

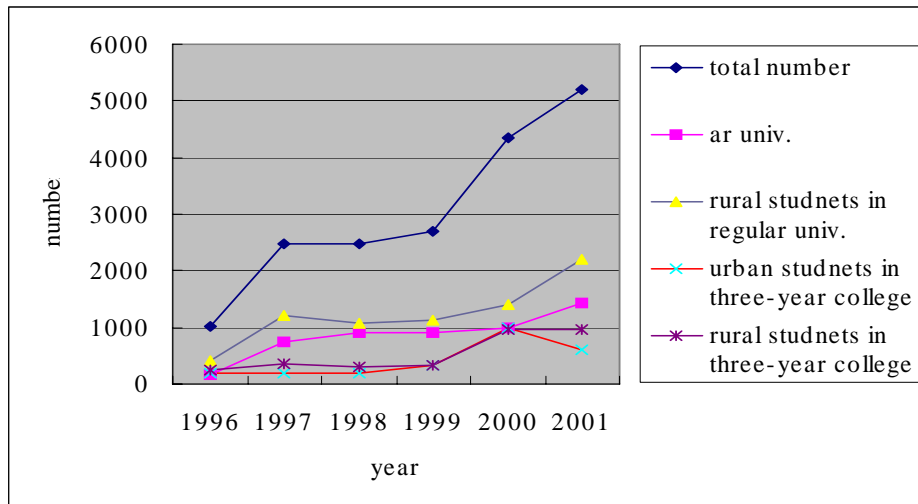
Table 4.3 presents the data of enrolment student numbers in Hebei University of Science and Technology.

Table 4.3 Enrolment student numbers of both urban and rural students in Hebei University of Sciences and Technology

Year	Total number	Urban students (regular four-year)	Rural students (regular four-year)	Urban students (three-year)	Rural students (three-year)
1996	1008	163	407	187	251
1997	2483	749	1199	188	347
1998	2482	918	1070	204	290
1999	2693	897	1130	324	342
2000	4360	999	1409	991	961
2001	5205	1439	2190	601	975

Sources: Data are from Department of education administration in Hebei University of Sciences and Technology.

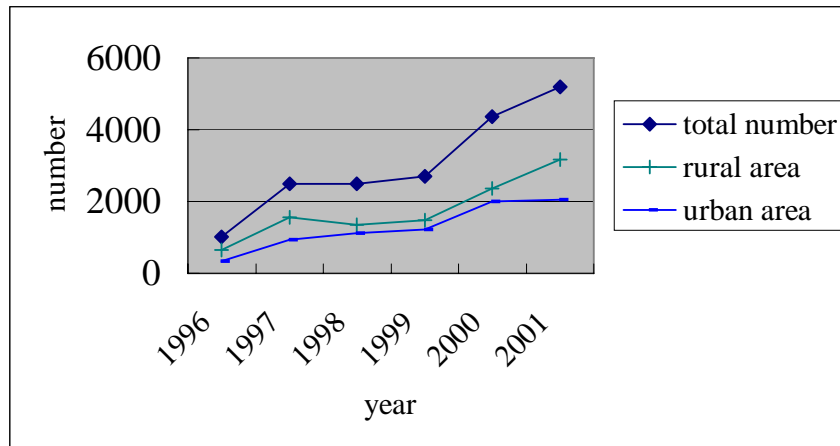
Figure 4.5 Comparison the student numbers of urban and rural students in regular four-year level and three-year level in Hebei University of Science and Technology (1996—2001)



As shown in Figure 4.5, there is big difference between Hebei University of Sciences and Technology and Stinghua University and Beijing Normal University. Figure 4.5 reveals the enrolment of both urban and rural students change a lot from year to year. Since year 2000, although urban students in three-year level have decreased, urban students in regular four-year level still increased greatly. This means more and more urban students prefer choose regular four-year universities. But the rural students in three-year level are still increasing each year.

Figure 4.6 indicates that after year 2000, the tendency of change in enrolment in Hebei University of Sciences and Technology is opposite to the tendency in first level universities. Since 2000, rural students have increased enormously in Hebei University of Sciences and Technology, but enrolment number of urban students doesn't change too much.

Figure 4.6 Enrolment of urban and rural students (1996—2001)



3.4.5 Conclusion

The ratio of urban students to rural students differs in both different types and different levels institutes. In those first level universities, urban students are 80 per cent of total students. But in those local universities, rural students are over 60 per cent of total students. The situation of Chinese higher education now is: urban students have more opportunities access to national first level universities (regular universities). Rural students only can get more opportunities in local institutes, especially in three-year colleges and higher vocational schools. This reveals high quality educational resources are allocated to urban students. From the data above, some estimate could be introduced here: since 1999 enrolment expansion, in those national first level universities, urban students have increased but rural students have decreased. In some local institutes, enrolment expands rapidly in both urban students and rural students. And the growth of rural students is much faster than urban students. Mainly because most local institutes are three-year colleges and higher vocational schools, they are less attractive to urban students. Though this chapter only gives some examples in Beijing and Hebei Province, but inequality of educational opportunity exists not in one area but in the whole country.

Chapter Four: An Analysis on the Reason of Regional Difference in Higher Education Enrollment

Early in the beginning stage of the People's Republic of China, Chairman MAO Zedong raised the problem of how to solve the urban and rural relationship in his "On the Ten Major Relations". Minimizing the gap between urban and rural areas and realizing the integration will be a major social development goal in mid to long run. The difference of higher education in urban and rural areas is a significant issue among various discrepancies between urban and rural areas. The equality of opportunity has direct impact on social equality and the realization of democracy, because the important function of higher education is talent selection and social strata. Therefore, this issue has been a very popular topic in sociology and education research in recent years. Based on the empirical analysis, higher education enrollment has increased a lot overall in the past decade, but the gap between urban and rural areas is getting larger after 1999. From the view of social equality and long-term social stability, this is a negative signal and trend. This chapter attempts to evaluate these problems, and analyze related reasons.

Some significant progresses have been made in higher education in 1990s: enrollment uniformity, free job selection, enrollment increase, tuition increase, and these policies have been carried out in 5-6 years. It should be noticed that the dramatic changes in higher education took place in parallel with the further development of the nation-wide reform. These changes do have some specific historical background and contemporary social and economic factors.

4.1 Theoretical analysis

4.1.1 The dual economic sector theory in development economics

The dual economic sector is not unusual in developing countries. It refers to the co-existence of the modern industry and the traditional industry in an economy. Our country is a typical socialism country with dual structure of urban and rural economics, and the contrast between urban and rural economics is much sharper than that of any other

countries. In 1990s, the urban household income was as much as 4 times rural household income, which is much greater than average 1.5 – 2 in most developing countries (Yang, 2001).

Most of the developing countries have a history of being colonized by western developed countries. They reformed the traditional agriculture industry after independence, and the modernization characterized by modern industry has become a necessary process for them to develop to wealthy country. However, these countries have to face the following two problems in their development: the enormous rural population concentrating on traditional planting agriculture and fund accumulation for modern industry development. Development economics which became popular after World War II is to address these issues. The problems between agriculture and modern industry, between urban and rural areas, and change from dual economic sector to integration have been typical research issues in development economics.

Lewis model assumes unlimited supplies of labor and it shows that marginal product of agriculture labor is zero or negative, and wages are low and only enough for basic living. The productivity of the modern manufacturing sector is high. Only with a little higher wages may the manufacturing sector have unlimited labor supplies transferred from traditional agriculture. The manufacturing industry expands with increasing employment. The employment in agriculture decreases, and the gross output also decreases. There will be a short supply in products, and the price goes up. The gap between urban and rural household income will diminish and eventually disappear. There is no more transition of labor from rural area to urban area. Later on, with the advance of modern manufacturing and productivity, the transition may take place periodically, and both urban and rural regions will develop in parallel with each other (Tan, 1999).

Ranis-Fei model is a generalization of Lewis model: the surplus labor supply from agriculture industry is a presumption for the expansion of modern manufacturing industry. But if the agriculture output surplus is not sufficient for the demand of the new

labor in manufacturing industry, the transition procedure will stop. Therefore, a country should pay attention to the importance of labor surplus for modern industry (Tan, 1999).

American economist, Schultz showed that the critical step in solving dual sector issue is to increase the productivity of agriculture to change it from traditional industry to a modern agriculture industry. He emphasized the regime construction, import of advanced product factors and more investment in agriculture human resource (Wu, 1999).

W. Todaro model showed that the large gap between urban and rural areas will result in population migration, and urban unemployment will deteriorate. At the same time, urban labor productivity is much than that of rural labor, which leads to even less demand for urban labor. High urban unemployment rate and universal rural poverty are the consequences of the severe economic inequality in developing countries (Tan, 1999).

Above theories could be summarized as follows: transition of surplus labor in rural area is a necessary step to resolve the dual economic sector issue; need to reform the tradition agriculture industry, enhance its productivity, increase agriculture output surplus, in order to have a mutual development of both sectors. The development economics theories, which emerged after World War II and introduced to China in late 1980s, shed light on our country's industrialization.

The development from Lewis model to Todaro model reflects the change of theoretical assumptions from free market to social regime construction and human resource investment (Tan, 1999). It shows that if we only rely on the spontaneous power of free market system in the process of transition from traditional society to modern society, we may face a lot of social problems. This in turns calls on government to take some necessary social responsibilities, carry out macroeconomic interference, and political functions in order to control deteriorating inequality in marketization process. For examples, making more efforts on rural human resource investment, create equal education opportunities. In this way, we may accelerate the transition of rural surplus labor, and at the same time enhance agricultural productivity and reform the tradition

agricultural production. The government should take more responsibilities to solve the social problems related to urban and rural gap.

4.1.2 Views on educational equality

The evolution of the educational equality concept in China resulted from the marketization reform in late 1990s. With more severe wealth polarization and social stratification, many researchers began to study the social issues caused by inequality. Among many social inequalities, unequal education opportunity is a leading factor that causes inequalities in enrollment, job seeking, and social classes. In addition, according to the belief in developing countries, it is the government's liability to control the educational inequality in order to enhance the entire social equality. Although American scholar Coleman's theory shows that educational inequality is the inevitable consequence of social stratification and absolute equality is impossible within current social regime, China has not become an Americanized stratified society, and there is a big gap between urban and rural children in terms of education opportunities. Therefore, in China the research on educational inequality is not only an issue of social inequality, but also an issue of how to optimize the allocation of educational resource, and a reference for regional development and optimization of educational structure.

In China, the uneven education level in urban and rural areas has already significantly affected education opportunities. The difference in education investment, teachers' knowledge, and students' scores is the strongest evidence, including the college enrollment scores, which is the final standard for schools and students. In fact, the failure rate of rural students is much higher than that of urban students. The popularization of higher education under the current education structure is only a privilege for urban youth. Although colleges have enrolled more students in recent years, and reduced the competition, there is a still strong demand for higher education. There is a severe unemployment among urban youth, but there is a strong demand for educated people in rural areas.

Therefore, educational inequality exists between urban and rural areas on one hand, but on the other hand, severe youth unemployment exists in urban area and strong demand for educated people in rural region. Only under such a background is it meaningful to research the issue of rural higher education, to educate students to serve rural regions, and to increase higher education for rural region,

The trend of higher education development is that universities become a country's political center, and it is what is happening in China. One of the functions of higher education is to foster cadres for government. There is a strong demand for cadres and intellectuals, but current college students are neither suitable for nor willing to work in rural regions. With more enrollments of college students, the problem of allocating education resource that we need to think about is how to establish an education structure that is suitable for rural development.

4.2 Economic reason for gap enlargement in regional education

Social wealth allocation methods depend on the main idea in different period. Hu Qiaomu summarized twenty years "Left" deviation mistakes before 1976 to pursuit of certain utopian idea of socialist goal, that is, equalitarianism, self-contained and self-sufficient socialist through mass movements step by step. Equalitarianism and closed-door policy have had become the results that many scholars make a self-examination of history (Jin, 2000). Over 20 years Reform and Open policy consist on the principle of implementation of "Having priority in efficiency and Giving consideration to fairness" which emphasizes development of social economics based on system, science and technology, against the class struggle and mass movement in order to establish policy objective of modern market economics system. The law of the jungle is the way of market allocation resources. In fact, rural and agriculture would decline under this system.

Development in opposing positions between urban and rural becomes more significant in near twenty years. Segregation system of urban and rural is the most important factor among all reasons in enlargement of social poverty gap (Zhao, 1995). To deprive of rural by urban, it does not show any releases by the process of reform, however, it becomes

harder in economics. Not only capital but also excellent human resources come into urban.

Another enlargement gap in opposing positions between urban and rural is unbalanced development between regions. In early 1980s, Chinese macroeconomics policies enforced gradient developing strategy that carried out favorable policy along the eastern coast through expected industry grading up and gradient transferring so that it could push forward the central and western regions development in proper sequence. In fact, it did not lead to joint development between eastern and central and western regions as a result of snail-paced economy development in agriculture-oriented central and western provinces and fast growth in eastern coast under the stimulation of export-oriented economy. Due to economics system reform, central government fiscal income reduced and showed insufficient managerial methods in balancing regional economics.

It is the most immediate efforts that taxation reform make effects on enlargement of regions and urban and rural among all economics reforms. It was a possess of central economics reforms that the Central grants power to the Local and allow them to keep a bigger share of profits in order to push on the initiative of development in the Local. Taxation reform was the main method of adjusting income distribution between the Central and the Local. During 1979 to 1993, state carried out “Eating by individual” and “Finance all-round responsibility system” fiscal and tax system that distribution leans to the Local which lead to the rising of state financial deficits and hard to fulfill the social responsibility by insufficient finance. Rural had have vigorous grow, farmers’ income improved and town revenue solid in 1980s. As such, the state began to grant power to lower levels in fundamental educations (Zhao, 1995). In 1985, it clearly revealed that the Central granted power to the Local in developing fundamental educations in “Resolution of Education System Reform”. Taxation reform led to central financial situation deteriorated which reflected economic reasons behind education system reform. Central finance turned to mitigated but the Local, especially in towns went deteriorated after 1993 (Zhao, 1995). Rural regions could not bear the burden of fundamental education. However, it did not show taking back power from the lower levels in education system

reform. It had better financial foundation in urban than in rural. After that, urban and rural, in the level of education development, go to the road to opposite and disunite.

4.3 The effects of education development and reform on urban-rural gap

Education bears its own way of development. Besides economic constraints, the educational structure and its influential scope also play an important role in educational source allocation.

The factors determining the educational source allocation could be summarized as below.

1. The evolvement of education philosophy

At the beginning of People's Republic of China, the main goal of our country was to setup and strengthen the political system in a short time, remove any remaining semi-colonial and semi-feudal cultural and economic influences, improve people's education and political role. In education, the State Council publicized "About Education" in 1958, and set the goal of education as "education should work for the politics of working class, and it should bond with production and labor". In 1952's adjustment of departments and colleges, every university should set up a middle school for workers and peasants, so that we may guarantee the education opportunity for them. Under this background, the number of rural students increased, and the gap between urban and rural areas dwindled.

In 1978, we began to correct the mistake of the radical treatment to the intellectuals in the national wide science meeting and education meeting, and we claimed that scientific technology is the first productivity, and the intellectuals is a part of working class. (Deng, 1975:86). In 1985, the national education meeting publicized "The Resolution of the CCP (Chinese Communist Party) on Education", and it pointed out that "education must work for the construction of socialism, and the construction of socialism must rely on education". At the same, there appeared a hot discuss about the essence of education. Whatever the discussion result, the discuss itself has showed that the education policy set up in 1985 had removed the expressional relationship between politics and education, and set the function of education in a more explicit way (Jin, 2000). This was also the

reflection of economy-centered political policy. The education policy which is more suitable for the new policy puts more emphasis on the systemization, efficiency and open-mindedness of education.

2. The restructuring of educational administrative system

The tax reform mentioned above was the direct reason that the government attempted to reform the educational administrative system. The reform began in 1980s and developed further later on.

“The Resolutions about Educational Reform” which was publicized in 1985 emphasized that the motivation of the reform was: “The old education system is not suitable for the new world wide challenge in science and technology. If we do not reform it, it will be a more severe problem that education is not parallel with modernization construction and new technological reform”. It also emphasized that the local government should take the responsibility of 9-year compulsory education. In 1995, CCP and State Council publicized “The Framework of China Education Reform and Development”. It said that local government should focus on primary education and central and provincial government should focus on higher education. Hierarchical education and administrative system has the advantage of reducing central government’s financial pressure, and increase incentive of local government in education investment. However, in practice, the education gap between urban and rural areas will exacerbate with the unbalanced economic development (Jin, 2000).

For example: In 1998, the average budget account per middle-school student is RMB 813 for student in urban area, and merely RMB486 for students in rural area; for primary-school student, in urban area is RMB 520, and only 311 for rural area. Even in less developed area, educational disparity among different areas is still obvious. For instance: the average budget per junior middle school student in urban area is RMB560 and only RMB 301 in rural area in Guizhou province (One of less-developed provinces in China) (Liu, 2003). For rural area, because of the financial pressure of the local government but still having to account for the major part of primary education investment, the education

level in rural area is far lower than urban area. For example, the shortage of cash for teacher's benefit and salary, the resignation of good teachers and off-school primary and middle school students.

3. The Tendency of Urban Centralization of Middle Level Education

In contrast to the educational reform in rural areas, the urban education develops very fast. The popularization of the 9-year compulsory education is not a problem for urban students and the popularization of senior high school education is the next step. "Education Improvement for 21 Century" mentioned explicitly set up the goal of popularization of senior high school education in big cities and coastal developed areas. With this policy, we began to optimize the allocation of the senior high school education resource, improve the school size and adjust and merge rural senior high school layout. All of these have broadened the gap of educational resource between urban and rural areas.

The senior high school in rural areas has developed much slower than those in urban areas. Among the total enrollment of senior high school, rural areas accounted for 59.70% in 1990 but decreased to 13.97%; urban accounted for 40.30% and increased to 86.03% (Liu, 2002). This led to the high school enrollment gap: national enrollment has increased from 40% in 1985 to 55.4% in 1999. But for rural area this number has decreased from 22.3% to 18.6% (Zhang, 2003). The senior high school education works as a preparation for higher education, and its enrollment has direct effects on higher education opportunity for urban and rural areas.

There is still a gap in quality of education between urban and rural area. In 1963, there were overall 135 premium secondary school in Beijing, Jilin and other 7 provinces. The number in urban area accounted for 62%, the number in suburban accounted for 32% and the number in rural area accounted only for 6% (Yuan, 1999). While one of survey in 1982 reveals that the number of premium school in urban area in 13 provinces in China has increased to 243, accounting for 70% of total number. The suburban ones accounts for 28% and rural ones accounts for only 2% (Yuan, 1999). It is obvious that in different

time periods, the educational gap in middle school education was always there, and became more severe after 1980s.

4. The regional disparity in education development.

In the adjustment of departments in 1950s, the colleges and universities in cities and coast areas moved to middle cities and inland areas to serve the economic development strategies, and we set up the principles to build a normal university in each jurisdiction, and a normal college every one to three provinces. This has set the balanced regional development for higher education and reduced the gap between coast and inland areas in higher education. After 1978, with the localization of higher education, the provinces with fast economic development started to accelerate the reform of higher education, and the regional gap even broadened. From 1978 to 1997, the number of college students per 10,000 populations has increased dramatically in Beijing, Shanghai and Tianjin. But this number in Tibet, Gansu province, Qinghai province, Ningxia province, Guizhou province not only is much lower than the nation average but also has the same difference with the average as in 1953. In some areas, the number is even worse than 1931. The provincial standard deviation of the number of higher education students per 10,000 populations has increase from 3 in 1978 to 29.9 in 1997 (Xie, 2002).

5. The Effects of Markertization of higher Education on Rural Students

Since 1990s, there has been dramatic change in college enrollment and placement. The graduated students have the option to choose their job, and the distribution policy of the plan economy has been removed. This has reduced many families expected return of the higher education. This is even truer for rural families. There are much less rural students applying for middle occupation training schools.

The increase enrollment since 1996 and the cost recovery policy have strongly stimulated the higher education in our country, especially the increased enrollment of 1999. The college enrollment has increased to 15% in a short period, and we have stepped into the stage of popularization of higher education. But the high tuition policy of higher

education exacerbates the inequality, even though it accelerated the industrialization of higher education.

In Beijing, the yearly college tuition ranged from RMB 4200 to RMB 6000. Even with the lowest RMB 4200, it accounts for 72% of urban per capita income (RMB 5854) in 1999, and 190% of rural per capita income (RMB 2210), and let alone the living expense and other costs. This is not only too much for rural students, even for urban students it is also a very burden. From the point of savings, there is also a sharp contrast: by then end of 1998, the total saving of our country was about 5.3 trillion. The enterprise saving was about 1 trillion, rural residents' saving was about 1 trillion, and 50% of the rest 3 trillion belonged to 20% wealthy people in this country (Zhao, 1999).

The increased enrollment and tuition in higher education also accelerated the senior high school enrollment and tuition, and even have negative impact on rural families' investment in high school education. In fact, a lot of rural children have been deprived of education opportunities after the graduation of junior high school or even early in the secondary year of junior high. A survey of three high schools in Bese distraction in Guanxi showed that 39.86% dropped out of school in 1995,1996 and 1997 classes (Wang, 1999). A research in Henan's middle level rural areas on junior high school showed that 58.35% of the students enrolled in 1998 accumulatively dropped out of school (Sun, unpublished). The high senior high school tuition is a major reason for rural students whether to continue their education or not. A market-centralized valuation concept has profound impact on higher education reform and policy. The increased enrollment is the result of the economic policy that attempts to enhance domestic demand and stimulate economy. The non-compulsory higher education is the motivation for cost recovery policy, which has caused tuition to increase to a high level that is unbearable for a common pleasant family in the industrialization of higher education. This has raised a wide social concern regarding the equality of education opportunities. Although Chinese government has improved the scholarship and students' loan system to address the social equality problems, more and more rural students have been deprived of education opportunities.

Those students from poor rural areas who are attending schools will not reflect the inequality in the entire higher education opportunities, because they are only a very small part of the rural students and we are still far away from education equality with the current social and economic background.

Chapter Five: Conclusion

In China, the inequality of educational opportunity is a reflection of the separated urban and rural areas and the under-developed educational quality in Chinese rural areas. Chinese government prioritizing developing urban areas is a key reason for the big difference between urban and rural areas. Students in less-developed rural areas cannot get education as good as those in urban areas, this directly causes competitive disadvantages on rural students.

From the above chapters, here are the results to present:

- 1) The situation for Chinese higher education in present days is: there are big differences between Chinese urban and rural areas in higher education. The differences are quite evident between Chinese urban and rural areas. Urban areas develop much faster but rural areas still hang behind. The gap between the two on economy is five to eight times, especially in mid-China and western China. This is because of Chinese regime and its history. After P.R.China was founded, in the economic-social structure with two opposite units----urban area and rural area---- existing side by side, during the process of industrialization, the difference between urban and rural areas has grown increasingly. Since the reform and open policy was put into effect, the reform on educational administration enlarged the difference of allocation of educational resources. This directly caused the inequality of educational opportunity in Chinese higher education: rural students have less opportunity to access to higher education because of their competitive disadvantages.
- 2) Chinese educational policy focuses on urban areas brings the big difference on basic and compulsory education between urban and rural areas. The aim to popularizing senior high school education in all urban areas enlarges the difference on education between urban and rural areas. Rural students don't have enough competitive capability in CCEE. This makes more urban students have opportunities to access to higher education than rural students.

- 3) Since 1998, some new effects on Chinese higher education have presented with the Chinese higher education reform: tremendous enrolment expansion brings more opportunities to both urban students and rural students, but the number of urban students signing up for CCEE and recruit by institutes is far more than rural students. And at the same time, increasing tuition for one student per year is more than the average income of one rural family in one year. Tuition becomes a big barrier for rural students. Therefore, difference between urban and rural students is enlarging with Chinese higher education reform.
- 4) Inequality of education opportunity also exists in different levels of higher education. Urban students get more opportunities to access to national first level universities and regular four or five year's universities. Rural students only could have more opportunities on choosing local institutes or those three-year colleges and higher vocational schools. Although both urban and rural students can access to higher education, different levels bring inequality of education opportunity as well.

5.1 Conclusion

Though Chinese higher education reform in 1998 is helpful to improve higher education, but it enlarges the inequality of education opportunity between urban and rural areas. This reform gives more urban students opportunity to access to higher education, but for those rural students, the opportunity they get still quite less than urban students. The increasing tuition is a big barrier for those poor rural students. Even rural students get their opportunity, the education quality still a problem that need to be concerned. Because the disproportion of allocating educational resource between urban and rural areas still exists.

Although in 2000, China has finished popularizing nine-year compulsory education, there are still a lot of differences among different areas: economic difference is the most important of all, because of this China still doesn't achieve "free of charge for nine-year compulsory education". Many rural students have to drop out of secondary school. Both junior higher school and senior higher school in rural area all lag behind schools in urban

area. These factors cause the inequality of education in Chinese compulsory education. And directly effects the equality of educational opportunity in Chinese higher education.

De-urbanization and ruralization on Chinese higher education are very efficient resorts to improve disproportion of allocating higher education resource. Fasten higher education in urban area is not a good idea to allocating social resource efficiently. Restricting the over-development of higher education in urban area and paying more attention to development of higher education in rural area and less-developed area could help improving the equality of higher educational opportunity.

Annexes

Annex 1: Population signing up for CCEE and enrolment number between urban and rural areas in different year

	Sign up population (urban area)	Enrolment number (urban area)	Sign up population (rural area)	Enrolment number (rural area)
1990	1073356	324089	1575901	289122
1991	1135805	308634	1794676	316431
1996	1117596	520293	1524827	507522
1997	1236369	531468	1570499	526607
1998	1422186	598239	1737894	552645
2001	2275592		2258903	

Annex 2: Comparison on higher education between urban and rural area in Beijing (1990—2001)

	Urban population/r ural population	Sign up population (urban/rural)	Sign up population (urban area)	Sign up population (rural area)	Enrolme nt number (urban area)	Enrolme nt number (rural area)	Enrolment number (per 10,000 in urban area	Enrolment number (per 10,000 in rural area
1990	1.62	3.055	31549	10327	15682	1395	24.61	3.53
1991	1.64	2.562	30186	11778	15758	1614	24.31	4.09
1992	1.67	2.550	28379	11129	16393	2570	25.29	6.55
1993	1.72	2.448	22570	9218	18282	4307	27.32	11.12
1994	1.78	2.826	20236	7160	16780	3534	24.49	9.22
1995	1.84							
1996	1.9	4.409	24373	5528	18477	2077	26.02	5.58
1997	1.98	5.167	31285	6054	21783	1815	30.04	4.95
1998	2.03	4.957	38011	7667	23400	2439	31.79	6.75
1999	2.1	5.703	47148	8266	37192	5209	49.65	14.63
2000	2.17	6.605	59994	9082	45203	5485	59.32	15.67
2001		6.443	70775	10984	49036	7302		

Annex 3: Enrolment in regular university, three-year college and higher vocational school in Beijing (1994)

	Regular university	Percentage in regular university	Three-year college	Percentage in three-year college	Higher vocational school	Percentage in higher vocational school
Urban area	12331	0.914423	4449	0.651486	355	0.184511
Rural area	1154		2380		1569	

Annex 4: Enrolment in different types institutes in Beijing (1994) (in percentage)

	Ministry institutes	Beijing local institutes	Local institutes	Military institutes	Art institutes	Physical education institutes
Urban area	89.67	87.59	85	90.55	99.01	70.1
Rural area	10.33	12.41	15	9.45	0.99	29.9

References:

- Beijing Higher Education Recruitment Yearbook 1991—2002. Beijing: Education Press.
- CAST (China Association for Science and Technology) (2002). *Report on research of Chinese Public Science attainment in 2001*. Science Popularization Press.
- China Higher Education Recruitment Yearbook 1991*. Beijing: Education Press.
- China Higher Education Recruitment Yearbook 1992*. Beijing: Education Press.
- China Population Statistic Yearbook 1990—2001*. Beijing: Statistic Press.
- Deng, Xiaoping. (1975). *Select Essay of Deng Xiaoping*. Vol. 2, No. 5, pp 86.
- Du, Yuheng. (2000). *Study on Education Development Imbalance*. Beijing: Beijing Normal University Press.
- Department of Higher Education in Xiamen University. (2002). *Equality and Efficiency: article collection of 21 Century International Higher Education Workshop*. Xiamen: Xiamen University Press.
- Hong, Yinxing. (2001). *Development Economics and China Economic Development*. Beijing: Higher Education Press.
- Hu, Angang. (2002). *China Strategy Assumption*. Zhejiang: People Press.
- Torsten Husén, T. (1986). *International Encyclopedia of Education: Equality of Educational Opportunity: Philosophical Issues*. Vol. 10, No. 2, pp. 2001. Oxford: Pergamon Press
- Jin, Yimin. (2000). *China Socialism Education*. Shanghai: East China Normal University Press.
- Liu, Wanyong. (2001) *Increasing Inequality in Chinese Education*. Retrieved Sep. 12th, 2006. from <http://www.ccrs.org.cn>
- Li, Wensheng. (2002). China Economic Development Strategy and China Higher Education Equality. *Equality and Efficiency: article collection of 21 Century International Higher Education Workshop*. Xiamen: Xiamen University Press.
- Liu, Yao. (2002). *Analysis of reasons on China Education Inequality*. Retrieved Sep. 12th, 2006. from <http://www.tech.net.cn>

- Ma, Guoxian. (2002). Who gets benefits from higher education subsidy? *China Finance and Economics Report: Vol.40, No.2, pp. 99-121.*
- Ma, Rong. (2000). *Study on China Rural Area Education*. Fujian: Education Press.
- Rawls J. (1972). *A Theory of Justice*. Vol.5, No.1, pp.105. Oxford University Press.
- Tan, Chongtai. (1999). *The Evolution on Development Economics*. Wuhan: Wuhan University Press.
- Wang, Xiaomao. (1999). Study on Dropout students in Mountain Rural Area. *Baise Education Bureau: Vol.55, No.1, pp. 37-46.*
- Wen, Tiejun. (2000). *Chinese Rural Area Basic Policy research*. China Economy Press.
- Wu, Jinlian. (1999). *Chinese Economic Innovation: Strategy and Implement*. Shanghai: Far East Press.
- Xie, Zuoxu.(2002). Analysis of Changes and Efficiency on China Higher Education Regional Development (1949—2001). *Equality and Efficiency: article collection of 21 Century International Higher Education Workshop*. Xiamen:Xiamen University Press.
- Yang, Qiang. (2001). Income Difference Between Urban and Rural Areas. Retrieved Aug.13th,2006. from <http://www.cei.gov.cn>
- Yuan, Zhenggu. (1999). *Policy Adjustment on China Education*. Guangdong: Education Press.
- Zeng, Manchao. (2000). *Economic Analysis on Education Policy*. Beijing: People Education Press.
- Zhao, Xialei. (1994). Institutional Fortune Effect. *Economic Information: Vol.32, No.2, pp. 4-5.*
- Zhang, Dexiang. (2000). Discussion on equality of educational opportunity. *Social Science Journal: Vol.34, No.3, pp. 37-40.*
- Zhang, Renjie. (1989). *Article Collection of International Educational sociology*. Shanghai: East China Normal University Press.
- Sun, Fuqiang.(2003). *Reasons of rural students' dropout*. Unpublished. (author is in graduate institute of Beijing Normal University.)